UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/709,692	11/10/2000	Edward B. Gindele	81753WFN	4714

1333	7590	01/30/2004

PATENT LEGAL STAFF
EASTMAN KODAK COMPANY
343 STATE STREET
ROCHESTER, NY 14650-2201

EXAMINER
KIM, CHONG R

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.		Applicant(s)	
Office Action Summary	09/709,692		GINDELE, EDWARD B.	
	Examiner		**Art Unit**	
	Charles Kim		2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

> A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
> THE MAILING DATE OF THIS COMMUNICATION.
> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
>   after SIX (6) MONTHS from the mailing date of this communication.
> - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
> - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
> - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
> - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
>   earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _10 November 2003_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-69_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-12,14-21,23-35,37-44,46-58,60-67 and 69_ is/are rejected.

7) ☒ Claim(s) _13,22,36,45,59 and 68_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _10 November 2000_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Response to Amendment and Arguments

1.   Applicant's amendment filed on November 10, 2003 has been entered and made of

record.

2.   In view of applicant's amendment, the 112 second paragraph rejection is withdrawn.

3.   Applicant's arguments with respect to claims 1, 3-12, 14-19, 21, 23-25, 37-42, 44, 46-58,

60-65, 67, 69 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1-12, 14-21, 23-35, 37-44, 46-58, 60-67, 69 are rejected under 35 U.S.C. 103(a)

as being unpatentable over the combination of the software program published by EPSON

entitled "Film Factory" version 1.0 and the relevant material associated with the program

("EPSON") and Boyack et al., U.S. Patent No. 5,724,456 ("Boyack").

Referring to claim 1, EPSON discloses a method for deriving enhanced image processing

parameters for a source digital image, comprising the steps of:

a.   providing a source (original) digital image (figure 1)

b.   generating at least three rendered digital images from the source digital image

with at least one image processing parameter associated with each rendered digital image (figure

1. Note that the imaging parameters associated with each of the corresponding rendered digital

images are "Green +", "Green -", "Blue +", "Blue -", "Red +", and "Red -")

c.   displaying the rendered digital images on a display (figure 1)

d.   selecting two or more of the rendered digital images [page 2 and figures 1-3.

Page 2 explains how the rendered digital images can be selected to vary the color of the source

image. Figure 1 shows a screen shot image prior to selecting the rendered digital images, figure

2 shows a screen shot image of the first selected rendered digital image (Red -), and figure 3

shows a screen shot image of the second selected rendered digital image (Blue +)]

d.   using the image processing parameters associated with the rendered images to

generate enhanced image processing parameters [figure 3. The enhanced image processing

parameters are shown on the left portion of the "Manual Retouch" window in figure 3. Note the

difference between the imaging processing parameters of the original source image (figure 1),

and the resulting enhanced imaging processing parameters (figure 3) after the two rendered

digital images are selected].

EPSON fails to explicitly disclose a compressed tone scale function wherein different

regions of an enhanced image have different brightness values. However, this feature was

exceedingly well known in the art. For example, Boyack discloses a compressed tone scale

function wherein different regions of an enhanced image have different brightness values (col.

12, lines 35-50).

EPSON and Boyack are both concerned with digital image enhancing techniques.

Boyack's compressed tone scale function eliminates the adverse effects that result from

displaying an image having wide dynamic range, such as clipping of the brighter and darker

areas of the image, which results in the bright objects being washed out and deep shadows being

blocked up (Boyack, col. 12, lines 27-39). Therefore, it would have been obvious to include the

compressed tone scale function of Boyack, as part of the enhanced image processing parameters

of EPSON, in order to further enhance the image by reducing the unwanted effects caused during

display.

Referring to claim 2, EPSON and Boyack do not explicitly disclose the step of storing

enhanced image processing parameters with the source digital image as meta-data. However,

Official notice is taken that storing image processing parameters as meta-data was exceedingly

well known in the art. Therefore, it would have been obvious to store the enhanced image

processing parameters with the source digital image as meta-data in the method of EPSON and

Boyack, in order to provide the capability of performing the image processing at a later time,

thereby increasing the flexibility of the system.

Referring to claim 3, EPSON further discloses the step of using the enhanced image

processing parameters and the source digital image to produce an enhanced digital image (page

4. Selecting the "Retouch" button (figure 3) produces the enhanced digital image in figure 4).

Referring to claim 4, EPSON further discloses that the image processing parameters

relate to the brightness of the rendered digital image (page 1 and figure 5).

Referring to claim 5, EPSON further discloses that the image processing parameters

relate to the color of the rendered digital images (figures 1-4).

Referring to claim 6, EPSON further discloses that the image processing parameters

relate to the tone scale of the rendered digital images (figures 1-4).

Referring to claim 7, see the rejection of at least claim 4 above.

Referring to claim 8, see the rejection of at least claim 5 above.

Referring to claim 9, see the rejection of at least claim 6 above.

Referring to claim 10, EPSON further discloses the step of using the image processing

parameters associated with the rendered digital images to calculate a tone scale function (figure

3. The tone scale function is shown on the left portion of the "Manual Retouch" window in

figure 3).

Referring to claim 11, see the rejection of at least claims 2 and 10 above.

Referring to claim 12 as best understood, EPSON further discloses that one of the

selected rendered digital images is selected at least twice and the enhanced image processing

parameters associated with the selected rendered digital images are a function of the number of

times the at least twice selected rendered digital image is selected [figures 3 and 6-7. Figure 3

shows a screen shot image of a selected rendered digital image (Red -) that is selected once.

Figure 6 shows a screen shot image of the selected rendered digital image (Red -) that is selected

twice. Figure 7 shows a screen shot image of the selected rendered digital image (Red -) that is

selected three times, and the enhanced imaging parameters are shown on the left portion of the

"Manual Retouch" window. Note that the enhanced imaging parameters are a function of the

number of times the rendered digital image is selected (in this case, three times)].

Referring to claim 14, ESPON further discloses the step of selecting a mode button on the

display before each selection of a rendered digital image (figures 1 and 5. Note that the "Color"

and "Brightness" tabs are interpreted as a mode button).

Referring to claim 15, EPSON discloses a method for generating an enhanced digital

image from a source digital image, comprising the steps of:

a.   providing a source (original) digital image (figure 1)

b.   generating at least three rendered digital images from the source digital image

with at least one image processing parameter associated with each rendered digital image (figure

1. Note that the imaging parameters associated with each of the corresponding rendered digital

images are "Green +", "Green -", "Blue +", "Blue -", "Red +", and "Red -")

c.   displaying the rendered digital images on a display (figure 1)

d.   selecting two or more of the rendered digital images [page 2 and figures 1-3.

Page 2 explains how the rendered digital images can be selected to vary the color of the source

image. Figure 1 shows a screen shot image prior to selecting the rendered digital images, figure

2 shows a screen shot image of the first selected rendered digital image (Red -), and figure 3

shows a screen shot image of the second selected rendered digital image (Blue +)]

d.   using the image processing parameters associated with the rendered images to

generate an enhanced digital image from the source digital image [page 4 and figures 3-4.

Selecting the "Retouch" button (figure 3) produces an enhanced digital image from the source

digital image using the image processing parameters associated with the rendered images, see

figure 4).

Referring to claims 16, 27, 39, 50, 62, see the rejection of at least claim 4 above.

Referring to claims 17, 28, 40, 51, 63, see the rejection of at least claim 5 above.

Referring to claims 18, 29, 41, 52, 64, see the rejection of at least claim 6 above.

Referring to claims 19, 33, 42, 56, 65, see the rejection of at least claim 10 above.

Referring to claim 20, EPSON fails to explicitly teach a spatial filter. However, Official

notice is taken that spatial filters were exceedingly well known in the art, and commonly used for

enhancing a digital image. Therefore, it would have been obvious to include a spatial filter in the

method of ESPON, in order to improve the enhancement of the digital image.

Referring to claims 21, 35, 44, 58, 67, see the rejection of at least claim 12 above.

Referring to claims 23, 37, 46, 60, 69, see the rejection of at least claim 14 above.

Referring to claims 24, 47, see the rejection of at least claim 1 above.

Referring to claims 25, 48, see the rejection of at least claim 2 above.

Referring to claims 26, 49, see the rejection of at least claim 3 above.

Referring to claims 30, 53, see the rejection of at least claim 7 above.

Referring to claims 31, 54, see the rejection of at least claim 8 above.

Referring to claims 32, 55, see the rejection of at least claim 9 above.

Referring to claims 34, 57, see the rejection of at least claim 11 above.

Referring to claims 38, 61, see the rejection of at least claim 15 above.

Referring to claims 43, 66, see the rejection of at least claim 20 above.

Allowable Subject Matter

5.   Claims 13, 22, 36, 45, 59, 68 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

Conclusion

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Charles Kim whose telephone number is 703-306-4038. The

examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am
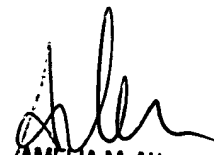
to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-306-0377.

ck
January 23, 2004

AMELIA M. AU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600